

REMARKS

This Application has been carefully reviewed in light of the Office Action. Applicants appreciate the Examiner's consideration of the Application. Claims 45-47 have been canceled, and Claims 1-44 and 48-53 are pending.

In order to advance prosecution of this Application, Applicants have responded to each notation by the Examiner. Applicants respectfully request reconsideration and favorable action in this case.

Specification

The Specification has been amended in accordance with the requirement of the Examiner. Applicants respectfully request removal of the objection to the Specification.

Section 101 Rejection

Applicants respectfully submit that Claims 1-44 and 48-53 provide a practical application that produces a useful, tangible, and concrete result, and thus are allowable under 35 U.S.C. § 101.

1. Useful

Claims 1-44 and 48-53 have a specific, substantial, and credible utility, and thus the claims provide a practical application that produces a useful result. [T]he utility of an invention has to be (i) specific, (ii) substantial, and (iii) credible. Off. Gaz. Pat. Office, § IV.C.2.b(1) (Nov. 22, 2005) (citing MPEP Sec. 2107 and In re Fisher, 421 F.3d 1365, ___, 76 USPQ2d 1225, 1230 (Fed. Cir. 2005) (citing the Utility Guidelines with approval for interpretation of "specific" and "substantial"))).

As an example, independent Claim 1 recites "retrieving the projected correlithm object," where "real states [are encoded] as a plurality of quantum objects, the quantum objects representing a correlithm object." The utility of Claim 1 is sufficiently specific, substantial, and credible. Accordingly, Claim 1 provides a practical application that produces a useful result. For analogous reasons, Claims 2-44 provide a practical application that produces a useful result.

As another example, independent Claim 48 recites "performing a tensor operation on the first set and the second set to generate a tensor product of the first set and the second set."

The utility of Claim 48 is sufficiently specific, substantial, and credible. Accordingly, Claim 48 provides a practical application that produces a useful result. For analogous reasons, Claims 49-53 provide a practical application that produces a useful result.

2. Tangible

Claims 1-44 and 48-53 yield a result that is sufficiently non-abstract, and thus the claims provide a practical application that produces a tangible result. [T]he tangible requirement does require that ... the process claim must set forth a practical application of that Sec. 101 judicial exception to produce a real-world result. Off. Gaz. Pat. Office, § IV.C.2.b(2) (Nov. 22, 2005) (citing *Gottschalk v. Benson*, 409 U.S. 63, 71-72, 175 USPQ 673, 676-77 (1972) (invention ineligible because had “no substantial practical application.”)). In other words, the opposite meaning of “tangible” is “abstract.” *Id.*

As an example, independent Claim 1 recites “providing output indicating the projected correlithm object,” which is sufficiently non-abstract. Thus, Claim 1 and its dependents provide a practical application that produces a tangible result. For analogous reasons, independent Claims 22, 29, 30, 31, 39, 43, and 44 and their dependents provide a practical application that produces a tangible result.

As another example, independent Claim 8 recites “an analyzer operable to: ... retrieve the projected correlithm object according to the measurement values,” which is sufficiently non-abstract. Thus, Claim 8 and its dependents provide a practical application that produces a tangible result.

As another example, independent Claim 15 recites “server system ... operable to: ... retrieve the projected correlithm object according to the measurement values,” which is sufficiently non-abstract. Thus, Claim 15 and its dependents provide a practical application that produces a tangible result. For analogous reasons, independent Claims 35 and its dependents provide a practical application that produces a tangible result.

As another example, independent Claim 48 recites “server system ... operable to: ... perform a tensor operation on the first set and the second set to generate a tensor product of the first set and the second set,” which is sufficiently non-abstract. Thus, Claim 48 and its dependents provide a practical application that produces a tangible result.

As another example, independent Claim 51 recites “logic encoded in a computer-readable storage medium and operable to: ... perform a tensor operation on the first set and

the second set to generate a tensor product of the first set and the second set,” which is sufficiently non-abstract. Thus, Claim 51 and its dependents provide a practical application that produces a tangible result.

3. Concrete

Claims 1-44 and 48-53 yield a result that is substantially repeatable and predictable, and thus the claims provide a practical application that produces a concrete result. The opposite of “concrete” is unrepeatable or unpredictable. Off. Gaz. Pat. Office, § IV.C.2.b(3) (Nov. 22, 2005). [A] process must have a result that can be substantially repeatable or the process must substantially produce the same result again. *Id.* (citing *In re Swartz*, 232 F.3d 862, 864, 56 USPQ2d 1703, 1704 (Fed. Cir. 2000) (where asserted result produced by the claimed invention is “irreproducible” claim should be rejected under section 101)).

As an example, independent Claim 1 recites “providing output indicating the projected correlithm object.” The result of Claim 1 is substantially repeatable and predictable. Accordingly, Claim 1 provides a practical application that produces a concrete result. For analogous reasons, Claims 2-44 provide a practical application that produces a concrete result.

As an example, independent Claim 48 recites “provide output indicating the tensor product.” The result of Claim 48 is substantially repeatable and predictable. Accordingly, Claim 48 provides a practical application that produces a concrete result. For analogous reasons, Claims 248-53 provide a practical application that produces a concrete result.

Claims 1-44 and 48-53 sufficiently provide a practical application that produces a useful, tangible, and concrete result. Accordingly, the claims are allowable under 35 U.S.C. § 101.

CONCLUSION

Applicants have made an earnest attempt to place this case in condition for allowance. For at least the foregoing reasons, Applicants respectfully request full allowance of all the pending claims.

If the Examiner believes a telephone conference would advance prosecution of this case in any way, the Examiner is invited to contact Keiko Ichiye, the Attorney for Applicants, at the Examiner's convenience at (214) 953-6494.

Although Applicants believe no fees are due, the Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,

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